

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

AMENDMENTS TO THE CLAIMS

1 (currently amended): A substrate body-floating apparatus for blowing ~~[[an]]~~ a gas flow onto a rear surface of a substrate body to float and rotate the substrate body comprising:

a floating unit having a floating-unit center and having a surface with a plurality of fine floating pores configured for floating the substrate body, a plurality of fine centering pores configured for centering the substrate body at ~~[[a]]~~ an apparatus center of ~~[[a]]~~ the substrate body-floating apparatus, a plurality of fine rotational pores configured for rotating the substrate body at ~~[[a]]~~ the apparatus center ~~of said apparatus~~, and a plurality of auxiliary fine suppression pores configured for suppressing vibration of the substrate body when the substrate body is rotated at a high speed, each pore type of said fine floating pores, said fine centering pores, said fine rotational pores, and said auxiliary fine suppression pores having a relative positioning and a directionality associated therewith, the relative positioning and the directionality of a particular pore type being unique to that said particular pore type with respect to others of said pore types, the relative positioning and the directionality associated with a given said pore type determining the direction of gas emission therethrough, the directionality of said fine rotational pores being approximately tangential to a particular circle concentric with the

AMENDMENTS TO THE CLAIMS

floating-unit center, the directionality of said auxiliary fine suppression pores being radially oriented toward the floating unit center, wherein all pore types of said fine floating pores, said fine centering pores, said fine rotational pores, and said auxiliary fine suppression pores are provided on a surface of said floating unit and are inclined against the surface of said floating unit, each of said pores having an inclination associated therewith, [[an]] a gas flow being injected into each of said pores in a direction of the inclination thereof.

2 (canceled)

3 (currently amended): [[The]] A substrate body-floating apparatus for blowing a gas flow onto a rear surface of a substrate body to float and rotate the substrate body comprising:

a floating unit having a surface with a plurality of fine floating pores configured for floating the substrate body, a plurality of fine centering pores configured for centering the substrate body at an apparatus center of the substrate body-floating apparatus, a plurality of fine rotational pores configured for rotating the substrate body at the apparatus center, and a plurality of auxiliary fine suppression pores configured for suppressing vibration of the substrate body when the substrate body is rotated

AMENDMENTS TO THE CLAIMS

at a high speed, each pore type of said fine floating pores, said fine centering pores, said fine rotational pores, and said auxiliary fine suppression pores having a relative positioning and a directionality associated therewith, the relative positioning and the directionality of a particular pore type being unique to that said particular pore type with respect to others of said pore types, the relative positioning and the directionality associated with a given said pore type determining the direction of gas emission therethrough wherein all pore types of said fine floating pores, said fine centering pores, said fine rotational pores, and said auxiliary fine suppression pores are provided on a surface of said floating unit and are inclined against the surface of said floating unit, each of said pores having an inclination associated therewith, a gas flow being injected into each of said pores in a direction of the inclination thereof, ~~according to claim 1 wherein~~ [[a]] the surface of said floating unit [[is]] being divided into four quadrants, a plurality of said fine floating pores being provided in each quadrant, each of said fine floating pores within a given one of said quadrants having a same floating pore direction as each of the other said fine floating pores located in said given one of said quadrants, said same floating pore direction being parallel to a

AMENDMENTS TO THE CLAIMS

diagonal line of said given one of said quadrants, said diagonal line being oriented to a center of said floating unit.

4 (previously presented): The substrate body-floating apparatus according to claim 1 wherein said plurality of fine centering pores configured for centering are located at positions that are one of on an outer periphery of the substrate body and on an outer side from the outer periphery, each of said fine centering pores being angularly displaced, relative to a center of said floating unit, from each adjacent said fine centering pore, said plurality of fine centering pores each having a fine centering pore direction associated therewith, each said fine centering pore direction being oriented toward said center of said floating unit.

5 (currently amended): The substrate body-floating apparatus according to claim 1, wherein said plurality of fine rotational pores are located at positions on ~~[[a]]~~ the particular circle, ~~with the particular circle having~~ a radius smaller than ~~[[the]]~~ a radius of the substrate body and centered around ~~[[a]]~~ the floating-unit ~~center of a surface of said floating unit,~~ ~~[[said]]~~ adjacent said fine rotational pores being directed away from one another in substantially opposite directions, ~~said substantially opposite directions being approximately tangential to said circle.~~

AMENDMENTS TO THE CLAIMS

6 (currently amended): The substrate body-floating apparatus according to claim 1, wherein ~~where said plurality of auxiliary fine suppression pores each have an auxiliary fine suppression pore orientation direction, each said auxiliary fine suppression pore orientation direction being directed oriented toward a center of said floating unit,~~ each said auxiliary fine suppression pore is located on a periphery of a circle extending beyond the position of said plurality of fine rotational pores, said circle being concentric with ~~[[a]] the floating-unit center of said floating unit,~~ said auxiliary fine suppression pore orientations directions ~~for~~ a set of adjacent said auxiliary fine suppression pores being directed so as to be angled at 90 degrees relative to one another.

7 (currently amended): A substrate body-floating type of heater comprising:

a floating means for applying air to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body, said floating means being a floating unit with a floating-unit center, said floating means including a plurality of floatation pores, a plurality of rotational pores, and a plurality of vibration suppression pores therein, said floatation pores, said rotational pores, and said vibration suppression pores being positioned and directed so as to promote one of floatation,

AMENDMENTS TO THE CLAIMS

rotation, and vibration suppression, respectively, via gas flow control, the relative positioning and the directionality associated with a particular pore type being unique to that said particular pore type with respect to others of said pore types, the directionality of said fine rotational pores being approximately tangential to a particular circle concentric with the floating-unit center, the directionality of said auxiliary fine suppression pores being radially oriented toward the floating-unit center; and

an optical lamp for heating a surface of the substrate body.

8 (currently amended): A substrate body-floating type of film-forming apparatus comprising:

a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body under atmospheric or under depressurized conditions for forming a film of deposited material on a surface of the substrate body, said floating means being a floating unit with a floating-unit center, said floating means including a plurality of floatation pores, a plurality of rotational pores, and a plurality of vibration suppression pores therein, said floatation pores, said rotational pores, and said suppression pores each being positioned and directed so as to promote one of floatation, rotation, and

AMENDMENTS TO THE CLAIMS

vibration suppression, respectively, via gas flow control, the relative positioning and the directionality associated with a particular pore type being unique to that said particular pore type with respect to others of said pore types, the directionality of said fine rotational pores being approximately tangential to a particular circle concentric with the floating-unit center, the directionality of said auxiliary fine suppression pores being radially oriented toward the floating-unit center.

9 (currently amended): The substrate body-floating type of film-forming apparatus according to claim 8, further comprising a nozzle for blowing gas for film formation onto a surface of the substrate body, said nozzle having a nozzle internal diameter, said nozzle internal diameter and an external diameter of the substrate body [[are]] being set to substantially the same values, [[and]] a clearance between a tip of the nozzle for blowing the gas and a surface of the substrate body [[is]] being set to 2 mm or less.

10 (currently amended): A substrate body-floating apparatus for blowing a gas flow onto a rear surface of a substrate body to float and rotate the substrate body comprising:

a floating unit having a surface with a plurality of fine floating pores configured for floating the substrate body, a plurality of fine centering pores configured for centering the

AMENDMENTS TO THE CLAIMS

substrate body at an apparatus center of the substrate body-floating apparatus, a plurality of fine rotational pores configured for rotating the substrate body at the apparatus center, and a plurality of auxiliary fine suppression pores configured for suppressing vibration of the substrate body when the substrate body is rotated at a high speed, each pore type of said fine floating pores, said fine centering pores, said fine rotational pores, and said auxiliary fine suppression pores having a relative positioning and a directionality associated therewith, the relative positioning and the directionality of a particular pore type being unique to that said particular pore type with respect to others of said pore types, the relative positioning and the directionality associated with a given said pore type determining the direction of gas emission therethrough wherein all pore types of said fine floating pores, said fine centering pores, said fine rotational pores, and said auxiliary fine suppression pores are provided on a surface of said floating unit and are inclined against the surface of said floating unit, each of said pores having an inclination associated therewith, [[an]] a gas flow being injected into each of said pores in a direction of the inclination thereof, according to claim 1 wherein all of said auxiliary fine suppression pores [[are]] being radially

Application No.: 09/381,061

Attorney Docket No.: FUK-59

Amendment Dated March 31, 2004

Reply to Final Office Action dated: October 3, 2003

AMENDMENTS TO THE CLAIMS

located outer of said centering pores and said rotational pores and
still within the surface of said floating unit.